Section of Occupational Medicine

President
Sir Austin Bradford Hill CBE DSC FRCP (hon) FRS

Meeting October 12 1964

Inaugural Meeting

The Inaugural Meeting of the Section of Occupational Medicine of the Royal Society of Medicine was held at 1 Wimpole Street, London w1, on Monday, October 12 1964, at 8.0 p.m., with Sir Terence Cawthorne in the Chair.

The Chairman said that this was a great occasion because it was the first time for fourteen years that a new Section had been formed and the new Section of Occupational Medicine would be the twenty-eighth of the various Sections of the Royal Society of Medicine.

The draft regulations of the new Section did not differ materially from those of other Sections. It was proposed that the tenure of office of the President of the Section should be one year, which was the usual practice. The objects of the Section were as follows:

Objects of the Section

(1) To provide a means, not readily afforded elsewhere, whereby physicians and surgeons with a special knowledge of the relationship between sickness and injury and conditions of work may discuss their problems, not only with each other, but also with colleagues in other fields, by holding joint meetings with other Sections of the Society.

(2) To make available information about the physical, chemical and psychological hazards of occupation, and in particular about those that are rare or not easily recognized.

(3) To offer a forum for the presentation and discussion of research in occupational medicine and toxicology.

(4) To advance occupational health in both its practical and its academic aspects.

The meeting declared itself unanimously in favour of setting up the new Section and of adopting the draft regulations for the Section.

It was agreed to elect as Founder Members those whose names had been circulated in the list of Founder Members, together with any others who submitted their names for inclusion.

The Chairman declared the twenty-eighth Section of the Royal Society of Medicine now to be in existence.

Sir Austin Bradford Hill expressed his pleasure at being elected President of the Section. He then called upon Sir Terence Cawthorne to address the meeting.

Opening Address

by Sir Terence Cawthorne FRCS (*London*)

First, I should like to say how pleased I am that the Royal Society of Medicine includes not only physicians and surgeons, but scientists and anyone who has any interest in the various disciplines associated with medicine. The President of our new Section, though not a doctor, is known to every doctor throughout the world. We are very proud that you, Sir Austin, should be the first President of this new Section.

There were several preliminary meetings before we decided to institute this new Section of Occupational Medicine, and the more meetings we had, the more clear it became that this would be a very important Section of the Society for it would enable scientists from other disciplines and various branches of medicine to share their experiences and exchange their views in the field of occupational medicine.

Within the Royal Society of Medicine we now have, with the Section of Occupational Medicine, 28 Sections, and next week there will be another, making 29 – Measurement in Medicine. We shall have within the Royal Society of Medicine practically every discipline which is engaged in medicine, dentistry and veterinary medicine.

I would like, therefore, to mention some of the Sections which may wish to participate in your meetings.

I am grateful to Professor R S F Schilling, who provided me with a brief and who also sent me his Cantor lectures, which I found fascinating. In those he mentioned that an Italian, Ramazzini, was the first to talk at any length on industrial problems in medicine, in the year 1705, but after that it was in England that most of the work was done. Percival Pott, in the 1770s, talked about scrotal cancer in chimney sweeps and Thackrah, in 1832, wrote one of the leading textbooks of the time on occupations and their effect upon health. In my own field of otology, Fosbroke in 1820 wrote about hearing in blacksmiths who worked in noisy surroundings.

Let us now mention some of the Sections of the Society which will have some interest in occupational medicine. First of all – I deal with them in alphabetical order – the Section of Anæsthetics. Fumes play their part in industrial disorders and I am quite sure that the anæsthetist as well as the respiratory physiologist will have a part to play in occupational diseases.

The Section of Comparative Medicine largely deals with veterinary medicine. There are the diseases which are transmitted from animal to man and vice versa.

The Section of Dermatology is concerned with those whose skin comes into contact with irritating substances in the course of their work.

Next, the Section of Epidemiology and Preventive Medicine. We had long talks with the President, Dr Charles Fletcher, who was kind enough to come to the preliminary meetings. I felt, as we all felt, that the Section of Epidemiology and Preventive Medicine did not really deal with the business of occupational medicine and occupational health in its widest sense, and they welcomed the idea of the formation of a separate Section to deal with occupational medicine.

The Section of General Practice was until today the youngest Section, having been instituted in 1950. It is those in the Section of General Practice who should be, and often are, the first to see diseases of occupation. I am quite sure, therefore, that they will have a lot to offer and contribute in the work of your Section.

With regard to the Section of the History of Medicine – we can all learn from history and Professor Schilling's Cantor lectures show this very well.

Now, I come to the Section of Laryngology. There are quite a lot of occupational diseases affecting the nose and throat. Among those whose voices are affected are clergymen and singers, and anyone who has been to any of the recent noisy political meetings will realize that politicians also may be affected. Also ulceration of the nose is seen in chromium workers.

The purpose of the Library and Scientific Research Section is to encourage everybody who can and will help towards keeping our Library going. Everyone here is probably a Fellow; if not, I hope you soon will be. Our Library is the biggest medical library in Europe, with nearly half a million volumes. We add 150 yards of bookshelving every year and this is why we have had gradually to grow into Chandos House. It is used extensively by clinicians and research workers in every field of medicine and its allied disciplines.

Then we come to the Section of Medicine. I suppose that the most important feature in the Section of Medicine from the occupational point of view is diseases of the chest. The various particles and fumes inhaled, whether they be cotton, asbestos or coal, remind us of some of the more obvious occupational diseases.

But there is another occupation, or perhaps I should say relaxation, that has received a great deal of notice recently and your President has not been entirely unconnected with this. I refer to smoking. You will recall the scene in 'The Importance of Being Earnest' by Oscar Wilde, when Lady Bracknell said to Jack, 'Do you smoke?' and Jack replied, 'Well, yes. I must admit I do smoke'. Lady Bracknell retorted, 'I am glad to hear it. A man should always have an occupation'.

The Section of Neurology has a special interest in many occupational diseases – for example, lead, arsenic and manganese may all affect the central nervous system in different ways.

The next is the Section of Odontology. There are various things which can affect the teeth – for example, fluorine and certain acids.

One of the things that comes before the Section of Ophthalmology is the effect of lighting upon working conditions, and there is our old friend, which is disappearing rapidly now, miner's nystagmus.

In the Section of Orthopædics the problem of road accidents rears its ugly head. A variety of things can have a deleterious effect upon driving, including alcohol and fatigue – and who among us here does not drive a car?

In the Section of Otology occupational deafness is of special interest. Another branch of otology which may be related to occupation is the balancing mechanism. How is it that some people are able to become steeplejacks and steel erectors and others cannot? What effect has overstimulation of the vestibular mechanism on sailors, aviators, ballet dancers and skaters?

Then we come to the Section of Pædiatrics. School is an occupation. Being a schoolmaster is also an occupation. I should think that there is a lot that could interest us all in the problems of the schoolchild, the adolescent, the parent and the teacher.

Next, the Section of Pathology. It is well known that certain blood dyscrasias may be caused by certain occupations.

Then there is the Section of Physical Medicine. Physical medicine has advanced beyond the days of massage and electricity. Now the disabled are taught new and useful occupations, and to learn new skills and trades.

The Section of Psychiatry blossoms with possibilities. I have talked about occupation, but what about the antithesis of occupation – no occupation? If those of us who are getting nearer and nearer to retiring age have only our work to occupy us what will we do when we retire? Will we die either of boredom or of alcohol or have we got a hobby to fall back on? Then there is the new trend in automation. How dull is this? How important is this? What part does the psychiatrist play in selecting people to be suitable for automated work? We are gradually getting towards the stage where not only do people not want to work, but where all they will do or need to do is perhaps two or three hours a day. From there, we may have to go to other things, such as what they are to do in their leisure time.

Next, the Section of Surgery. Varicose veins, I am told, are an occupational hazard not only of mothers but also of diplomats who have to spend so much of their working day standing at receptions. An interesting new form of injury I have just been reading about is grease-gun injury in garage mechanics. These can be frightful injuries.

The United Services Section is interested in all kinds of occupation and how to keep people healthy – well, they are healthy to start with; but how to keep them happy.

Finally, we come to the Section of Urology. I understand that tar, certain dyes and rubber additives may cause carcinoma of the bladder. It has even been said that smoking may have some part in carcinoma of the bladder.

I hope that this outline of the work of some of the Sections of the Royal Society of Medicine will encourage your Section to call in Fellows of the Society to help in your work, and I will conclude by wishing your Section a happy and active life.

Professor Melville Arnott (*Department of Medicine, University of Birmingham*)

It is a great surprise and pleasure to be asked to join so actively in this happy occasion. Perhaps I should explain how it comes that I, a general physician, a pedestrian professor of medicine in a provincial university, show interest in this new Section.

One thing which attracted me when I heard of this new Section arises from the fact that I am what I like to call an 'anti-specialist'. I feel that we are on the verge of an era of the breaking down of the barriers between the old-established, rather rigid specialties which, if we were honest with ourselves, we must admit were founded more, to put it bluntly, upon the conditions of the marketplace than upon fundamental science.

One sees in occupational medicine an important and vital opportunity of bringing to bear upon problems of disease the resources of all the relevant divisions of medicine – and at one time or another they are all relevant – and, even more important, the resources of physics, chemistry and, above all, biometrics, of which our first President is so distinguished an exponent.

The position of the general physician in such a Section is important, because inevitably to him will present at an early stage many of the suspicions and clues of specific occupational factors which play a part in disease. Patients come to the family doctor and to the industrial medical officer in the first instance, but unless their illness is relatively brief they fall into the hands of the physician in the hospital who sees unselected outpatients. The physicians of our teaching hospital in Birmingham, although they are cardiologists, gastroenterologists, endocrinologists, &c., all share in dealing with unselected medical patients. The physician, by tradition, has to make a total assessment of the patient. Nobody really blames a surgeon if he misses an involutional depression, nobody blames the psychiatrist if he misses fibroids in the uterus, but everybody blames the general physician if he misses anything in any system. This is one of the obligations of taking unselected patients.

Hardly a month passes in Birmingham without some instance of a specific occupational disorder coming into our wards. In the last two or three years, my colleagues – able young men whom I am fortunate to have around me – have become particularly interested in farmer's lung, and in the ventilation/perfusion defect which it produces. Farming is a very important industry in our country.

We have had several cases of severe anæmia which were traced quite decisively to an occupational factor. Jewellery enamellers may moisten the brush between their lips when painting jewellery with pigments which contain lead. In Birmingham we have urological problems to which Sir Terence has referred. Certain chemicals applicable to the rubber industry are associated with carcinoma of the bladder. Thus there are many instances that remind us in an industrial city of the importance of occupational medicine. However, it is not the instances which we see that

worry me so much as the instances which, I am sure, we are missing. The only way to avoid missing them is to keep as broad a view as possible and to be in contact, as one can be in this new Section, with people who are interested in the chemical, physical and psychological risks which a highly industrialized society brings inevitably to all its inhabitants.

The medical profession has its industrial hazards, too, as I was sharply reminded some years ago when I had a transient and comparatively happy encounter with the tubercle bacillus. For a few weeks I had to be off duty. To my pleasant surprise it was regarded as an industrial injury and I was paid sickness benefit at the appropriate rate and had there been any continuing disability, I should have benefited under the Industrial Injuries Act.

Medical Appeals Tribunals constantly remind one of the wide range of hazards which occupations bring. One is also reminded of the very difficult and often arbitrary distinction that has to be drawn between 'loss of faculty' directly attributable to the relevant accident and those factors the elements of which are due to unrelated disease and constitutional causes.

I should like also to emphasize that there are occupational hazards in being a patient. I am often rather oppressed by the thought of the number of patients in our wards whose disturbance at that particular moment is directly attributable to therapeutic agents. I am thinking particularly of the antibiotics, the corticoids, the phenothiazine derivatives and the thiazide diuretics. The other day I inadvertently induced a classical attack of gout with chlorothiazide.

All those are definitely diseases and syndromes which are incidental to the occupation of being a patient. They illustrate the great scope for a study of occupational medicine and the interest which this Section will stimulate and foster throughout clinical practice.

Tropical medicine has great problems, too. There are many serious diseases in the tropics which are due to the conditions in which the people work; for example, schistosomiasis and ankylostomiasis from contact with contaminated water.

The building of the railway to Maiduguri, in North-East Nigeria, had grave occupational risks. This railway passes through country which is malarial, has schistosomiasis, onchocerciasis and areas heavily infested with tsetse fly with risks of trypanosomiasis to man and beast.

In conclusion, the point I wish to reiterate is that this Section, above all others, should be, and I hope will be, one in which the general physician and surgeon will take a keen interest; he should get from it clues which will alert him to the problems arising in his daily practice, and it will give him the knowledge which he can bring to bear in the solution of these problems. He will be able to know to whom to appeal if he suspects that a particular industrial environmental hazard is playing a part.

Dr B H Pentney (*London*)
There can be few general practitioners who have not asked their patients at some time, 'What work do you do?' or, 'What does your work involve?' These simple questions must show that they have an interest in their patient's work related to his illness. We know that this awareness does not always result in a treatment or recommendation in keeping with the best principles of specialist occupational medicine, and indeed gives rise to some of those ambiguous certificates like 'fit for light work'. But clearly the interest and concern is there. It may be lack of opportunity which prevents the general practitioner from being more enthusiastic and better informed.

The 1,500 or more appointed factory doctors have better opportunity, and attend factories for statutory requirements. Lately they have been asked by interested proprietors and management to do more and more extra-statutory work. With his surgery within the same area as the factories, and his general practice interest in workers at home, this doctor has a great advantage with local industry. He can visit plants and gain the confidence of management and key workers, and his ordinary medical training will enable him to see faults and difficulties and put him in a good position from which to give preventive medical advice. His work is mostly concerned with small factories where there is no desire to have systematic medical cover.

What all part-time doctors in occupational health need is a place where, without fear of unfriendly criticism, they can put forward their observations, ideas and impressions, and where they can learn from experts in the various fields. It is this Section which I fervently hope will provide these circumstances, particularly in the words of the objects of the Section, which are 'to advance occupational health in both its practical and its academic aspects'.

Mr J G P Williams (*London*): There is one type of occupation which has not as yet received any mention this evening - sport. Sport is an industry in which thousands are employed as professionals, but I am prompted by what Sir Terence has said to suggest that it can be regarded as an occupation on a much broader basis involving millions of people at a time.

The study of the medical aspects of sport and physical fitness, and of the place of sport in the life of the community, has not got very far in this country. Abroad, sports medicine is an accepted specialty and in many countries is a competence recognized officially as such. In this country it still remains the hobby of a few interested and devoted people. Surely it is of more importance than that! From such material as is available it appears that there are annually more sports injuries which result in some form of disability, temporary or permanent, than there are similar injuries in road accidents. It can also be shown that, of those injuries which occur in sport, about 10% prevent the victim from doing a normal day's work.

I hoped that there might have been some discussion of the objects of this Section, for I should have liked to suggest that as well as considering 'the relationship between sickness and injury and conditions of work' we should also consider conditions of play. As Sir Terence has already said, with automation and more and more people getting free time, something must be done to occupy that time. This occupation will in many cases be sport.

I make a plea, therefore, that in considering our future programme and objects we should include sport, which is a very important activity, and which could fairly be regarded as an 'occupation'.

Dr W Gunn (*London*): Concerning the time of the meetings, I wonder whether you might consider 5.30 p.m. instead of 8.0 o'clock? I do not know the views of other people but it might be a more convenient hour.

Dr B H Pentney: Interested general practitioners would find it very difficult to get here at 5.30 p.m. on a Monday. Later in the evening and later in the week is better.

Dr M F Hawkins (*Salisbury*): Following Dr Williams' comments I would like to raise the subject of safety equipment used in sporting occupations. Two examples can be given of inadequate safety equipment in use: one a life jacket that supports the wearer face down in the water, and the other a crash helmet with inadequate supporting harness worn by horse riders. Members of the Section might be well placed to give advice on what constitutes safety in safety equipment and I would like to know whether it is considered that this should be a task of the Section, and if so, how it should be done.

Dr R A Trevethick (*Rotherham*): Whilst this subject would make an interesting topic to many members of the Section I am doubtful whether there is anyone who is expert on the whole field of protective equipment. For example, there are those who specialize in eye protection, safety clothing, respirators, &c., all of which are special fields. It is probably true to say that too little thought has been given to the general design of safety equipment either for sport or industry and therefore equipment is often clumsy and unacceptable. If sufficient experts can be mustered, however, this topic will be borne in mind.

Dr A Anderson (*London*): Sir Terence Cawthorne's remark that when one is not occupied one dies of either boredom or alcohol prompts me to mention that, along with several industrial colleagues, I have been interested for some time in the question of why people work well. This is not so strange as it may appear because we recognize that pay, conditions of work and prospects of promotion are not the complete answer, and that there are many people who work because they have an urge to serve people or make things. Many investigations have been conducted into the question of incentives or the causes of good group morale, but no one really knows how to create conditions at work which bring out the best in people. I would suggest that this question might be examined, possibly with the co-operation of the Section of Psychiatry.

Dr T A Kemp (*London*): There seems to be little doubt that we can look forward to a considerable expansion in education. Young people are usually regarded as being healthy unless they are so ill that they have to go to hospital. There are groups of doctors who are especially interested in school and university health, and I should like to see this new Section taking an interest in the health of school and university people.

Dr John Robertson (*Liverpool*): Professor Melville Arnott preferred the title 'Medicine in Industry' to 'Occupational Medicine', though his address suggested a broader concept. I hope the Section will not be confined to medicine in industry – already well catered for in the Association of Industrial Medical Officers – but that it will consider occupational medicine in all aspects of occupation, whether it be in sport, in industry, or in the home.

Professor Melville Arnott: May I offer an amendment? My interpretation of the word 'industry' is simply to be 'at something'.

Dr T A Lloyd Davies (*London*): We have talked about medicine in industry, or medicine at work, with which I wholeheartedly agree, because you cannot deal with one small section of medicine by itself without the whole background, but we must consider the whole problem of prevention. It does not seem to me that this has been emphasized at all.

One of the main functions of this Section will be the exchange of information. There has recently been reported to us, for example, a case of lead poisoning with jaundice. It so happens that we have on our records over the past three years other cases of jaundice in which lead poisoning seems to be associated. It may not be significant, but that sort of thing must be looked at very carefully. That can only be done by the general physician, the jobbing physician or whatever term one applies to him, working with us. This is essential.

The more I see of the subject, the more I am convinced with Professor Melville Arnott that industrial or occupational medicine, whatever it is called, goes back to the general physician. We get reports of neurological disease in people who have worked with mercury. I cannot help feeling that mercury is a common factor. This is the sort of thing that we can thrash out in this Section. I hope that we can bring in the general physician and pathologist and that we do not fail to bring forward the odd but interesting cases on the ground that one swallow does not make a summer.

Dr H Loewenthal (*Enfield*): Few hospital pathologists are willing at present to provide laboratory facilities for the study and prevention of industrial diseases, as they find it difficult to add to their work. I myself have been able to collaborate with a number of factory doctors and industrial medical officers. This collaboration has proved to be of great benefit. I hope this new Section will help to create the facilities required to form a closer link between laboratory workers and those responsible for the prevention of occupational diseases.

Dr R Murray (*London*): I should like to endorse what Dr Lloyd Davies has said. I think that this Section has got off on a very broad basis. It would appear that all medicine is occupational medicine and, conversely, that occupational medicine is all medicine. This thesis can be easily defended.

There are, however, two aspects of the subject, a specific or a specialist aspect, and a nonspecific or a general aspect. The specific aspect relates to the effect of occupation on individuals, and the nonspecific aspect relates to the capacity of individuals to perform their occupation. I hope that this Section will indulge in a judicious mixture of these two aspects of the subject.

Dr R A M Case (*London*): The Section may be able to offer help to epidemiologists who need to know the history of the use of dangerous compounds, particularly those with a long-delayed action such as the industrial bladder carcinogens α-napthylamine, β-naphthylamine, xenylamine and benzidine. For example, in the absence of a reliable history of this sort one cannot feel happy about the continuing high incidence of bladder tumours in the rubber industry and in the cable-making industry. If the dogmatic statements made by the British Association of Urological Surgeons (1961) and the Rubber Manufacturing Employers' Association (1961) are substantially true, it seems quite likely that some substance still in use and at present thought to be innocuous is in fact a potent carcinogen. However, Parkes (1964) states that benzidine was in fact used in some factories in the rubber industry until 1956. This was known to at least one of those people who in 1961 were so emphatic about the withdrawal of all risk in 1949! Unless accurate and nonconfidential histories of the usage of dangerous substances are known, epidemiologists cannot fulfil their function of watching disease patterns in industrial populations in order to detect new or unsuspected risks at the earliest possible moment.

REFERENCES
British Association of Urological Surgeons (1961) *Brit. J. Urol.* **33**, 1
Parkes G (1964) *Lancet* ii, 254
Rubber Manufacturing Employers' Association (1961) Papilloma of the Bladder in the Rubber Industry. Health Advisory Committee Publication No. 7. Manchester

The President: I would like to thank the speakers for their suggestions of subjects for future meetings and assure them that these will be brought to the notice of the Council of the Section. The arrangements for meetings (days and times) have been made for the current year only and will be revised in the light of experience.